10/539.667 MAT-8703US

May 27, 2009 Amendment Dated:

Reply to Office Action of: February 27, 2009

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Application No.:

1. (Currently Amended) An inter-router adjustment method for use with a plurality of router devices on a common network operating as a virtual router such that one of the router devices operates as a master router and remaining router devices operate as backup routers, the method comprising:

requesting, by a control device, router status information of the plurality of router devices belonging to a common sub-network, the router devices connected to external networks, respectively, the external networks being different from each other;

acquiring, by the control device, the router status information of the plurality of router devices belonging to the common sub-network and calculating priorities of the router devices belonging to the common sub-network based on the router status information to decide whether each respective router device of the router devices belonging to the common sub network is to become operational as a virtual router device:

calculating, by the control device, priorities of the plurality of router devices;

deciding, by a master deciding section of the control device, using the calculated priorities a first-respective router device of the plurality of router devices belonging to the common sub-network that is operational and one or more other router devices of the router devices belonging to the common sub-network to be placed in a standby status, according to the calculated priorities to operate as the master router and the plurality of router devices other than the respective router device that are to operate as the backup routers; and

notifying, by the control device, each of the plurality of router devices that the respective router device is to operate as the master router and the plurality of router

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<u>devices other than the respective router device are to operate as the backup routers</u>belonging to the common sub-network that the first router device—is operational.

(Cancelled).

- (Previously Presented) An inter-router adjustment method according to claim 1, further including a step of adjusting the priorities between or among the router devices depending upon a significance of the router status information.
- (Previously Presented) An inter-router adjustment method according to claim 1, wherein a request for the router status information is periodically made based on the information request step.
- (Currently Amended) An inter-router adjustment method according to claim 1, wherein a request for the router status information is made according to a request from a communication device including the router devices connected to the common sub-networknetwork.
- (Previously Presented) An inter-router adjustment method according to claim 1, wherein the calculating of the priorities is made when there is a change in the router status information acquired.
- (Previously Presented) An inter-router adjustment method according to claim 1, wherein the router status information further includes at least one of a processing burden or a remaining battery capacity of the respective router device.
- 8. (Currently Amended) A router priority calculation device for use with a plurality of router devices on a common network operating as a virtual router such that one of the router devices operates as a master router and remaining router devices operate as backup routers, comprising:
- a router information gathering section for gathering router status information of $\underline{\text{the plurality of}}_{r} \text{router devices-} \underline{\text{belonging to a common sub-network,}}_{r} \underline{\text{the router-devices}}$

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being connected to external networks, respectively, the external networks being different from each other;

a priority calculating section for calculating priorities of each of the plurality of router devices based on the router status information decide whether a respective router device of the router devices belonging to the common sub-network is to have an operational status-based on the router status-information-so-that a plurality of router devices of the common sub-network operate virtually as one router device.

a decision section for deciding using the calculated priorities a respective router device of the plurality of router devices that is to operate as the master router and the plurality of router devices other than the respective router device that are to operate as the backup routersa first router device belonging to the common sub-network that is to become operational and one or more other router devices of the router devices belonging to the common sub-network to be placed in a standby status, according to the colculated priorities; and

a priority notifying section for notifying <u>each of</u>the plurality of router devices that the <u>respective router device</u> is to operate as the <u>master router and the plurality of router devices other than the respective router device are to operate as the <u>backup routers belonging</u> to the <u>common sub network that the first router device is operational.</u></u>

9. (Cancelled).

- 10. (Previously Presented) A router priority calculation device according to claim 8, wherein the router information gathering section has a comparing section for comparing the router status information newly acquired with existing router status information, to instruct the priority calculating section to re-calculate a priority when the comparing section detects a difference in the router status information.
- 11. (Previously Presented) A router priority calculation device according to claim 8, wherein the router information gathering section has an information request section for requesting the router status information to the respective router device.

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12. (Original) A router priority calculation device according to claim 11, wherein the router information gathering section has a timer, the information request section requesting the router status information when receiving a time-up notification from the timer.

13. (Currently Amended) A router priority calculation device according to claim 11, wherein the router information gathering section further includes an update request receiving section for receiving an update request for the priority from a communication device including the router devices connected to the common subnetworknetwork.

the update request receiving section, when receiving the update request, making a notification to the information request section whereby the information request section requests the router status information to the respective router device.

- 14. (Previously Presented) A router priority calculation device according to claim 8, wherein the router status information further includes at least one of a processing burden or a remaining battery capacity of the respective router device.
- 15. (Currently Amended) A router device configured to operate with at least one other router device_of a plurality of router devices on a common network as a virtual router such that one of the plurality of router devices operates as a master router and remaining router devices operate as a backup router, as a plurality of router devices that belong to a common sub-network, the router device comprising:
- a status notifying section for forwarding router status information to a control device, the router device and the one other router device being connected to external networks, respectively, the external networks being different from each other;
- a receiving section for receiving from the control device which of the plurality of routers is to operate as a master router and which of the plurality of routers is to operate as the backup routera notification that the router device is to become operational as a virtual router device and that the at least one other router device belonging to the common sub-network is to be placed in a standby status; and

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a section for causing <u>each of</u> the router devices to <u>be-operational, operate as</u> <u>either the master router or the backup router</u> according to <u>the notification a notification</u> received <u>by each of the routers as to which of the routers is to be the master router</u> and which of the routers is to be the backup router.

- 16. (Previously Presented) A router device according to claim 15, wherein the status notifying section forwards periodically the router status information onto the common sub-network.
- 17. (Previously Presented) A router device according to claim 15, further including an information request receiving section for receiving a request for the router status information, to forward the router status information onto the common subnetwork depending upon the request the status notifying section received.
- 18. (Previously Presented) A router device according to claim 15, further including a status monitor section for monitoring a change in the router status information, the status monitor section, when detecting a change in the router status information, making a notification to the information notifying section whereby the status notifying section forwards a latest router status information onto the common sub-network.
 - 19. (Currently Amended) A local network system, comprising:
- a plurality of router devices <u>on a common network operating as a virtual router</u> such that one of the <u>router devices operates</u> as a <u>master router and remaining router</u> <u>devices operate as backup routers</u>, each of the plurality of router devices including:
- a status notifying section for forwarding router status information to a router priority calculation device, the plurality of router devices being connected to the external networks, respectively, the external networks being different from each other,
- a receiving section for receiving from the router priority calculation device a notification that a first router device of the plurality of router devices is to operate as the master router and the plurality of router devices other than the

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respective router device are to operate as the backup routersbecome operational as a virtual router device, and

a section for causing each respective router device to <u>operate as the</u>

master router or one of the <u>backup routers</u>be operational or to be placed in a standby

status, according to the notification received <u>by each of the routers as to which of the</u>

routers is to be the master router and which of the routers is to be the <u>backup routers</u>;

and

the router priority calculation device including:

- a router information gathering section for gathering router status information of the router devices—belonging to the common sub-network from the router devices belonging to the common sub-network,
- a priority calculating section for calculating priorities for deciding whether each respective router device of the plurality of router devices is to be operational as the virtual router device based on the router status information, and
- a decision section for deciding, using the calculated priorities, a respective router of the plurality of routers that is to operate as the master router and the plurality of routers other than the respective router device that is to operate as the backup routers the first router device belonging to the common sub-network that is to become operational and one or more other router devices of the plurality of router devices to be placed in the standby-status, according to the calculated priorities; and
- a priority notifying section for notifying the plurality of router devices that the <u>respective router device</u> is to operate as the <u>master router and the plurality of router devices other than the respective router device are to operate as the backup <u>routersfirst-router-device-is-operational</u>.</u>

20.-29. (Cancelled).

30. (Previously Presented) The method according to claim 1, wherein the router status information further includes battery capacity information that indicates a

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remaining battery capacity of the respective router device such that the calculated priorities are based on line status information and the remaining battery capacity of the respective router device.

- 31. (Previously Presented) The method according to claim 1, wherein the router status information includes line status information that indicates at least one of: (i) a transmission speed of the physical link, (ii) an error condition for the physical link, or (iii) a degree of congestion on the physical link, the physical link being different from any router device.
 - 32. (Cancelled).